Engineering Associates Inc.

GIVAUDAN-ROURE

LAGOON CLOSURE PLAN

NJPDES PERMIT NO. NJ088374

April 23, 1996

Issued May 1, 1996

PREPARED FOR

GIVAUDAN-ROURE CORPORATION
CLIFTON, NEW JERSEY

PREPARED BY

CREST ENGINEERING ASSOCIATES, INC.
HIGHTSTOWN, NEW JERSEY

TABLE OF CONTENTS

1.0 Introduction

The Clifton Facility of Givaudan-Roure Corporation is located at 125 Delawanna Avenue in the City of Clifton, Passaic County, New Jersey. The facility includes the Fragrance Specialty Divison (plant south of Delawanna Avenue). This Plan of Closure concerns the Fragrance Specialty Divison site only. The Fragrance Specialty Divison is bounded by a New Jersey Transit/Conrail railroad on the west, River Road on the south, a residential area on the southeast, and Delawanna Avenue on the northeast.

The Clifton Facility is a manufacturing facility producing aroma and specialty chemicals. Attendant support activities include quality control, engineering, warehousing, maintenance and utility services, wastewater pretreatment, and employee services.

The facility consists of multiple buildings separated by paved roadways, sidewalks, and parking lots. The facility is served by stormwater, sanitary, and wastewater/sanitary sewer systems and potable water systems.

Stormwater sewer inlets are located throughout the facility. The stormwater sewers and overland flow discharge to the Clifton stormwater sewer at Delawanna Avenue, a stormwater collection lagoon, the swale beside the railroad, River Road at the Railroad crossing and an inlet at River Road that all discharge through the City of Clifton storm sewer system and, ultimately, into the Passaic River.

Givaudan-Roure has Discharge to Groundwater NJPDES permit number NJ088374 for the referenced existing stormwater collection lagoon located in the west-central portion of the site and situated south of Delawanna Avenue. In accordance with Part II-DGW-I of permit number NJ088743, Givaudan-Roure is required to submit a closure plan to NJDEP 180 days prior to expected closure of the lagoon.

This proposal consists of closing the existing lagoon and directing the stormwater to it's current destination at the southern portion of the facility through a proposed on-site storm sewer system.

2.0 Reasons for Lagoon Closure

Givaudan-Roure plans to close the lagoon to open up additional real estate for use. Givaudan-Roure is currently in the process of developing a capital improvements program . The program includes demolishing some of the older existing buildings and constructing new buildings. Closing of the lagoon provides added flexibility for configuration of buildings, parking areas and access roadways.

Currently, the lagoon does capture stormwater runoff from small events. However, it does not have the capacity to retain the

stormwater runoff from a 25 year storm, the design storm required by the City of Clifton. During such a storm, the pond will overtop. The overtopping stormwater will flow to the south and outfall on River Road. Therefore, closure of the pond will not significantly affect the flow patterns of the site.

3.0 Future Use of Area Occupied by Lagoon

As stated in Section 2.0, Givaudan-Roure is planning a capital improvements program. The actual configuration of the proposed buildings, parking and access roads have not been finalized. It is anticipated that a portion of a building, parking area, roadway or lawn will be located at the current lagoon location.

4.0 Volume of Sludge in Lagoon

Since only stormwater has been directed to this lagoon for at least the last 20 years, it is expected that no sludge exists in the pond. Sampling in accordance with the NJPDES Permit has not revealed any deviations from acceptable levels of all constituents.

Any sediments found in the lagoon are expected to consist of grit and soil transported by the stormwater runoff from the parking and the grassed areas within the drainage area. Soils logs in other areas of the site indicate that the soil is a loamy sand.

The actual components of the soil at the bottom of the pond will not be known until such time as the water surface is lowered. Once the surface water level has been reduced, the character of the sediments can be determined by visual inspection. If the sediment appears to contain too much organic content to be stable under the loading of the proposed back fill, the sediment will be excavated and disposed either on-site or off-site in a manner appropriate to its character and in accordance with all applicable regulations. An estimate of sediment will be prepared during sediment evaluation.

At this time, it is not anticipated that off-site disposal will be necessary.

5.0 Fill Material

The fill material shall approximate the characteristics of the soil present on-site. The soil profile shall consist of a mixure of red/brown medium and coarse to very coarse silty sand. See attached drilling logs for two logs within the vicinity of the lagoon.

6.0 Plot Plan

Attached, please see "Lagoon Closure Site Plan", dated April 22, 1996. Indicated on this plan are: Note that the lagoon closure is a part of a larger project. Only those improvements directly

related to lagoon closure are indicated.

1. Existing storm sewer piping to be abandoned, (as relevant to the project).

2. Existing storm sewer piping to remain, (as relevant to the project).

3. Proposed on-site storm sewer to be constructed to collect and convey the stormwater runoff now directed toward the lagoon.

4. Proposed final grades of the lagoon after back filling.

7.0 Sedimentation and Erosion Control Plans

A Sedimentation and Erosion Control Plan shall be prepared during the construction plan preparation phase. These plans shall be prepared in accordance with Standards for Soil Erosion and Sediment Control in New Jersey, April 1986. Since the lagoon closure is a part of a larger project and surface area to be disturbed will greater than 5,000 square feet, the soil erosion and sediment control plans for the entire project will be submitted to the Hudson-Essex-Passaic Soil Conservation District in Verona, New Jersey, for certification.

The attached Lagoon Closure Plan includes a detail sheet for lagoon closure specific soil erosion and sediment control details.

8.0 Schedule of Events

Schedule of closure activities			
	Start Date	Duration	Activity
1	May 1, 1996	3 months	Submit closure plan to NJDEP for approval[1]
2	August 1, 1996	1 month	Incorporate into construction documents,
3	September 1, 1996	5 months	Obtain City of Clifton, Passaic County, Essex-Hudson-Passaic Soil Conservation District approvals
4	February 1, 1997	1 month	Bid project
5	March 1, 1997	1 month	Mobilization
6	April 1, 1997	2 months	Install proposed stormwater system (including connections of existing system to divert flow from lagoon outfalls)...ending sampling requirements
7	June 1, 1997	1 week	Pump remaining stormwater out of lagoon and into stormwater system
8	June 8, 1997	2 weeks	Determine structural suitability of soil at bottom of lagoon
9	June 22, 1997	2 week	Excavate any soils not structurally unsuitable
10	July 8, 1997	1 week	Back fill lagoon area with soil representative of area and structurally suitable, topsoil and seed or construct structure to be located on this area

[1] The approval process timing is critical. The current permit expires in June of 1997 and a request for renewal is due by January of 1997. Therefore, to ensure that request for renew is not required, construction must be started by April 1997. Closure approval must be obtained with enough lead time to conduct all required activities prior to beginning construction.

APR-26-1990 15:54

Environmental Resources Management **Drilling Log**

Project Givaudan Owner Givaudan Corporation

Location Clifton, NJ W.O. Number 223-07-01-01

Well Number 10D,10S,10SA Total Depth 204 Diameter 6"

Surface Elevation ____ Water Level: Initial ____ 24-hrs ____

Screen: Dia. See page 9 Length ____ Slot Size ____

Casing: Dia. ____ Length ____ Type ____

Drilling Company Hardin-Huber Inc. Drilling Method Mud/Air Rotary

Driller Nate LaZaro Log By R.Carper/C.Pidge Date Drilled 5/5/88

Sketch Map

Notes

Depth (feet)	Graphic Log	Well Construction	Sample Number	Blow Count	OVA Reading (ppm)	Description/Soil Classification (Color, Texture, Structures) Trace=1-10% Some=10-20%
1						0-6.2' 10R 3/4, Dark red coarse to very coarse subangular silty sand with trace rock fragments and cobbles with angular pebbles and trace mica
2						
3						
4						
5			1	2,3	3.0	
6				5,6		6.2- 5YR 4/6, Yellowish red coarse to very
7						11.5' coarse poorly sorted silty sand with
8						trace heavy minerals and angular
9						quartzose rock fragments
10			2	3,4	2.4	
11				5,6		
12						11.5- 7.5YR 4/6, Strong brown medium silty
13						21.8' sand
14						
15			3	3,6	0.2	
16				10,8		
17						
18						
19						
20			4	6,6	0	
21				8,9		21.8- 7.5YR 4/4, Dark brown fine to
22			5	2,3	0.2	23.2 medium silty sand, wet
23				3,8		23.2- 10YR 3/3, Dark brown fine silty sand
24			6	3,8	1.0	26.0 with occasional rock fragments, wet
25				10,12		
26						

Environmental Resources Man nent **Drilling Log**

Project _____ Owner _____

Location _____ W.O. Number _____

Well Number 10D, 10S, 10SA Total Depth _____ Diameter _____

Surface Elevation _____ Water Level: Initial _____ 24-hrs. _____

Screen: Dia. _____ Length _____ Slot Size _____

Casing: Dia. _____ Length _____ Type _____

Drilling Company _____ Drilling Method _____

Driller _____ Log By _____ Date Drilled _____

Sketch Map

Notes

Depth (feet)	Graphic Log	Well Construction	Sample Number	Blow Count	OVA Reading (ppm)	Description/Soil Classification (Color, Texture, Structures)
27			7	10,11	0.6	26-28' 10YR 4/3, Brown clayey silt marbled with black silt lenses, good plasticity, moist
28				10,9		
29						
30						28-37' 10R 3/4, Dusky red clayey silt with very fine sand, good plasticity, moist
31						
32						
33						
34						
35						
36			8	8,17	0.4	
37				15,15		
38						37-44' 2.5YR 3/2 Dusky red silty clay with silt lenses, moist
39						
40						
41						
42						
43						
44						
45						44-50' 5R 4/3 Weak red, silty sand with trace clay, wet
46			9	10,12	0.5	
47				20,16		
48						
49						
50						
51			10	25,47	0.8	50-59' 10R 5/3 Weak red, silty sand with
52				40,5		59 trace clay, not plastic, wet

Environmental Resources Management **Drilling Log**

Project _____ Owner _____

Location _____ W.O. Number _____

Well Number 10D,10S,10SA Total Depth _____ Diameter _____

Surface Elevation _____ Water Level: Initial _____ 24-hrs _____

Screen: Dia. _____ Length _____ Slot Size _____

Casing: Dia. _____ Length _____ Type _____

Drilling Company _____ Drilling Method _____

Driller _____ Log By _____ Date Drilled _____

Sketch Map

Notes

Depth (feet)	Graphic Log	Well Construction	Sample Number	Blow Count	OVA Reading (ppm)	Description/Soil Classification (Color, Texture, Structures)
53						
54						
55						
56			11	27,30	No	
57				41,38	Recovery	
58			12	15,14	1.0	
59				16,20		
60						59–65.8' 10YR 3/3, Dark brown wilty fine sand
61						with trace clay, semi-plastic, dense.
62						
63						
64						
65						
66			13	17,14	3.0	65.8–71.6' 10R 5/3, Weak red silty fine sand
67				14,19		with trace clay, dense.
68						
69						
70						
71			14	17,14	5.0	
72				45,47		71.6–76' 10YR 5/2, Grayish brown silty fine
73						76' sand with trace clay and grey
74						mottling, crumbly, dense.
75						
76			15	23,25	16.0	
77				28,40		76–79' 10YR 4/3 Brown fine silty sand with
78						some clay and some grey mottling,
						crumbly, dense.

Environmental Resources Management

Drilling Log

Project _____ Owner _____

Location _____ W.O. Number _____

Well Number 10D,10S,10SA Total Depth _____ Diameter _____

Surface Elevation _____ Water Level: Initial _____ 24-hrs. _____

Screen: Dia. _____ Length _____ Slot Size _____

Casing: Dia. _____ Length _____ Type _____

Drilling Company _____ Drilling Method _____

Driller _____ Log By _____ Date Drilled _____

Sketch Map

Notes

Depth (feet)	Graphic Log	Well Construction	Sample Number	Blow Count	OVA Reading (ppm)	Description/Soil Classification (Color, Texture, Structures)
79						79-90' 10YR 4/3 Brown fine silty sand with some clay and some grey mottling, crumbly, dense
80						
81			16	27,24	5.0	
82				23,28		
83						
84						
85						
86			17	25,3[illegible]	1.5	
87				38,45		
88						
89						
90						
91			18	27,3[illegible]	0.5	90-92' 10YR 5/3 Brown fine silty sand with trace clay, blocky, crumbly, grey mottling.
92				38,4[illegible]		
93						
94						
95						
96			19	30,2[illegible]	1.5	95-97' 10YR 4/2 Dark greyish brown very fine silty sand with trace clay, blocky, crumbly, grey mottling.
97				30,4[illegible]		
98						
99						
100						
101			20	13,2[illegible]		100-102' 5YR 4/3 Reddish brown fine silty sand with trace clay with stringers of 10YR 4/1, Dark grey plastic clay.
102				18,2[illegible]		
103						
104						

Environmental Resources Management **Drilling Log**

Project _____ Owner _____

Location _____ W.O. Number _____

Well Number 10D, 10S, 10SA Total Depth _____ Diameter _____

Surface Elevation _____ Water Level: Initial _____ 24-hrs _____

Screen: Dia. _____ Length _____ Slot Size _____

Casing: Dia. _____ Length _____ Type _____

Drilling Company _____ Drilling Method _____

Driller _____ Log By _____ Date Drilled _____

Sketch Map

Notes

Depth (feet)	Graphic Log	Well Construction	Sample Number	Blow Count	OVA Reading (ppm)	Description/Soil Classification (Color, Texture, Structures)
105						105-115' 5YR 4/4 Reddish brown fine to medium
106			21	55,52	No	silty sand, with trace clay, very
107				70,76	Recovery	slighly plastic.
108						
109						
110						
111			22	44,46	3.0	
112				54,58		
113						
114						
115						
116			23	25,32	7.0	115-117' 7.5YR 3/4 Dark red brown fine to
117				37,45		medium silty sand, with trace clay.
118						
119						
120						
121			24	19,29	3.0	120-122' 5YR 4/4 Reddish brown clayey silt,
122				30,55		plastic, with grey mottling.
123						
124						
125						
126			25	25,37	3.0	125-127' 5YR 4/3 Reddish brown clayey silt,
127				30,46		slightly plastic.
128						
129						
130						

Environmental Resources Management

Drilling Log

Project _____ Owner _____

Location _____ W.O. Number _____

Well Number 10D,10S,10SA Total Depth _____ Diameter _____

Surface Elevation _____ Water Level: Initial _____ 24-hrs. _____

Screen: Dia. _____ Length _____ Slot Size _____

Casing: Dia. _____ Length _____ Type _____

Drilling Company _____ Drilling Method _____

Driller _____ Log By _____ Date Drilled _____

Sketch Map

Notes: Cored from 154 164 feet

Depth (feet)	Graphic Log	Well Construction	Sample Number	Blow Count	OVA Reading (ppm)	Description/Soil Classification (Color, Texture, Structures)
131			26	21,3[illegible]	No	
132				36,4[illegible]	Recovery	
133						
134						
135						
136			27	24,2[illegible]	0.0	135-137' 5YR 3/4 Dark reddish brown clayey
137				32,3[illegible]		silt, slightly plastic, slight grey
138						mottling
139						
140						
141			28	33,3[illegible]	No	
142				36,3[illegible]	Recovery	
143						
144						
145						
146			29	24,3[illegible]	2.0	145-157' 5YR 4/4 Reddish brown very fine silty
147				37,3[illegible]		sand, with grey clay mottles.
148						
149						
150						
151			30	30,3[illegible]		150-153' 5YR 4/4 Reddish brown very fine silty
152				36,3[illegible]		sand.
153						153-154' Gravel/weatherd bedrock
154						
155						154-156.3' 10R 3/3 Dusky Red medium grain silty
156						micaceous sandstone.

Environmental Resources Management, Inc.

Well 14D

WO No:	22317.00.01	Date Completed	10 July 1995		
Project	Givaudan	Owner	Givaudan-Roure Corporation		
Location	Clifton, N. Jersey	Boring Depth (ft)	172.0	Diameter	6 inches
Lat.		Surface Elevation		feet msl	
Long.		Riser Elevation		feet msl	
Screen	Open Hole	Length (ft)		Diameter	
Slot Size		Stabilized DTW		feet TOC	
Riser	None	Length (ft)		Diameter	
Method	MudRotary/Air Hammer	Driller	T.Brown	Geologist	Goncalves/Kimsey

Location Sketch Map

Drilling Company Aquifer Drilling & Testing Mid - Atlantic, Inc. Trenton, N. Jersey

Elevation (MSL)	Depth (feet BGS)	Well Construction Schematic	Split-Spoon #	Recovery (inches)	Blows per 0.5 feet	OVA (ppm)	Sample (feet BGS)	Sample Description/Classification
								Overburden lithology from 2-inch split-spoon samplers.
								Steel surface casing (10-inch) to 30' bgs.
								Steel casing (6-inch) to 147' bgs.
	0		1	10	29-19-	0	0.5-2	Red/brown cobbles, fine sand & gravel, dry.
					15			
			2	8	9-11-	0	2-4	Same as above.
					8-7			
			3	14	7-8-	0	4-6	Gravel & silt & cobbles, damp.
	5				11-9			
			4	8	13-8-	0	6-8	Red/brown cobbles, fine to medium sand
					11-5			and gravel, dry.
			5	6	6-2-	0	8-10	Same as above.
					3-5			
	10		6	4	3-4-	0	10-12	Same as above.
					3-4-			
			7	12	4-6-	0	12-14	Same as above.
					8-7			
			8	12	12-10-	0	14-16	Red/brown cobbles and sandy silt, some low
	15				8-3			plasticity clay; damp to moist.
			9	12	6-12-	0	16-18	Same as above.
					9-10			
			10	12	4-5-	0	18-20	Same as above.
					7-9			

NA: Not Analyzed

Environmental Resources Management, Inc.

Well 14D

WO No:	22317.00.01	Date Completed	10 July 1995				
Project	Givaudan	Owner	Givaudan-Roure Corporation				
Location	Clifton, N. Jersey	Boring Depth (ft)	172.0	Diameter	6 inches		
Lat.		Surface Elevation		feet msl			
Long.		Riser Elevation		feet msl			
Screen	Open Hole	Length (ft)		Diameter			
Slot Size		Stabilized DTW		feet TOC			
Riser	None	Length (ft)		Diameter			
Method	Mud/Rotary/Air Hammer	Driller	T.Brown	Geologist	Goncalves/Kimsey		

Location Sketch Map

Drilling Company Aquifer Drilling & Testing Mid - Atlantic, Inc. Trenton, N. Jersey

Elevation (MSL)	Depth (feet BGS)	Well Construction Schematic	Split-Spoon #	Recovery (inches)	Blows per 0.5 feet	OVA (ppm)	Sample (feet BGS)	Sample Description/Classification
	20		11	8	4-13-	0	20-22	Same as above (upper 4 "); medium-fine sand
					19-9			& gravel (lower 4 "), red/brown color, dry.
			12	12	14-10-	0	22-24	Red/brown fine sand & cobbles, little fines;
					10-10			cobbles are semiconsolidated sandstone.
			13	18	5-6-	0	24-26	Same as above (upper 6 "), tan/red fine
	25				6-9			sand, wet to damp (lower 12 ").
			14	18	2-3-	0	26-28	Tan/red fine sand, wet to damp.
					8-10			
			15	20	6-7-	0	28-30	Same as above (upper 6"), tan/gray fine
					8-8			sand (lower 4 ").
	30		16	18	7-5-	0	30-32	Tan/gray fine sand, saturated (upper 6 "); gray to
					5-6			black fine sand, strong sewer odor (lower 12 ").
			17	24	6-7-	0	32-34	Fine silty sand, black/gray color, saturated,
					10-12			very strong sewer odor.
	35		18	24	19-15-	0	35-37	Silty sand and silt, gray/black color,
					15-22			very strong odor.
	40		19	24	12-19-	0	40-42	Same as above.
					21-30			

NA: Not Analyzed

Environmental Resources Management, Inc.

Well 14D

WO No: 22317.00.01 | Date Completed: 10 July 1995
Project: Givaudan | Owner: Givaudan-Roure Corporation
Location: Clifton, N. Jersey | Boring Depth (ft): 172.0 | Diameter: 6 inches
Lat. | Surface Elevation: ____ feet msl
Long. | Riser Elevation: ____ feet msl
Screen: Open Hole | Length (ft): ____ | Diameter: ____
Slot Size: | Stabilized DTW: ____ feet TOC
Riser: None | Length (ft): ____ | Diameter: ____
Method: MudRotary/Air Hammer | Driller: T.Brown | Geologist: Goncalves/Kimsey | Location Sketch Map
Drilling Company: Aquifer Drilling & Testing Mid - Atlantic, Inc. Trenton, N. Jersey

Elevation (MSL)	Depth (feet BGS)	Well Construction Schematic	Split-Spoon #	Recovery (inches)	Blows per 0.5 feet	OVA (ppm)	Sample (feet BGS)	Sample Description/Classification
	45		20	24	3-4-	0	45-47	Silty sand and silt, gray/black color,
					5-13			very strong odor.
	50		21	20	2-5-	0	50-52	Same as above.
					9-15			
	55		22	18	0-0-	0	55-57	Same as above.
					8-15			
	60		23	24	3-10-	0	60-62	Same as above (upper 12"); red/brown clay & silt
					10-21			very high plasticity (lower 12"), saturated, strong odor.
	65		24	24	0-5-	0	65-67	Same as above, except plasticity changes from
					6-10			high to low.

NA: Not Analyzed

Environmental Resources Management, Inc.

Well 14D

WO No:	22317.00.01	Date Completed	10 July 1995		
Project	Givaudan	Owner	Givaudan-Roure Corporation		
Location	Clifton, N. Jersey	Boring Depth (ft)	172.0	Diameter	6 inches
Lat.		Surface Elevation		feet msl	
Long.		Riser Elevation		feet msl	
Screen	Open Hole	Length (ft)		Diameter	
Slot Size		Stabilized DTW		feet TOC	
Riser	None	Length (ft)		Diameter	
Method	MudRotary/Air Hammer	Driller	T.Brown	Geologist	Goncalves/Kimsey

Location Sketch Map

Drilling Company Aquifer Drilling & Testing Mid - Atlantic, Inc. Trenton, N. Jersey

Elevation (MSL)	Depth (feet BGS)	Well Construction Schematic	Split-Spoon #	Recovery (inches)	Blows per 0.5 feet	OVA (ppm)	Sample (feet BGS)	Sample Description/Classification
	70		25	24	1-5-	0	70-72	Red/brown clay with sand & silt; low to high
					6-7			plasticity.
	75		26	24	18-28-	0	75-77	Fine and medium red/brown/black sand with
					52-85			trace silt, saturated to damp; strong odor.
	80		27	12	92-	NA	80-82	Red/brown fine sandy silt, med/high
					100/4"			plasticity, no odor.
	85		28	18	34-65-	NA	85-87	Red/brown silty clay and clay; med/low
					100/6"			plasticity; no odor.
	90		29	18	24-36-	NA	90-92	Red/brown clay interbedded with light gray
					54-67			clay, no oder, moist (upper 14"); red/brown silty
								sand (lower 4"), damp to saturated.

NA: Not Analyzed

Environmental Resources Management, Inc.

Well 14D

WO No:	22317.00.01	Date Completed	10 July 1995		
Project	Givaudan	Owner	Givaudan-Roure Corporation		
Location	Clifton, N. Jersey	Boring Depth (ft)	172.0	Diameter	6 inches
Lat.		Surface Elevation		feet msl	
Long.		Riser Elevation		feet msl	
Screen	Open Hole	Length (ft)		Diameter	
Slot Size		Stabilized DTW		feet TOC	
Riser	None	Length (ft)		Diameter	
Method	MudRotary/Air Hammer	Driller	T.Brown	Geologist	Goncalves/Kimsey

Location Sketch Map

Drilling Company Aquifer Drilling & Testing Mid - Atlantic, Inc. Trenton, N. Jersey

Elevation (MSL)	Depth (feet BGS)	Well Construction Schematic	Split-Spoon #	Recovery (inches)	Blows per 0.5 feet	OVA (ppm)	Sample (feet BGS)	Sample Description/Classification
	95		30	12	22-21-	4	95-97	Medium/fine red/brown sand, damp.
					39-40			
	100		31	14	32-48-	NA	100-102	Same as above (upper 6 ");
					59-63			same as above with gravel (lower 8 ").
	105		32	12	NA	0	105-107	Brown clay, low plasticity, no odor.
	110		33	0	NA	NA	110-112	No recovery, may be large gravel.
	115		34	4	NA	NA	115-120	Large gravel.
	120							

NA: Not Analyzed

Environmental Resources Management, Inc.

Well 14D

WO No:	22317.00.01	Date Completed	10 July 1995		
Project	Givaudan	Owner	Givaudan-Roure Corporation		
Location	Clifton, N. Jersey	Boring Depth (ft)	172.0	Diameter	6 inches
Lat.		Surface Elevation		feet msl	
Long.		Riser Elevation		feet msl	
Screen	Open Hole	Length (ft)		Diameter	
Slot Size		Stabilized DTW		feet TOC	
Riser	None	Length (ft)		Diameter	
Method	MudRotary/Air Hammer	Driller	T.Brown	Geologist	Goncalves/Kimsey

Drilling Company: Aquifer Drilling & Testing Mid - Atlantic, Inc. Trenton, N. Jersey

Location Sketch Map

Elevation (MSL)	Depth (feet BGS)	Well Construction Schematic	Split-Spoon #	Recovery (inches)	Blows per 0.5 feet	OVA (ppm)	Sample (feet BGS)	Sample Description/Classification
	125							
	130							
	135							
							137	Bedrock
	140							
	145							
								[6-inch steel casing to 147' bgs, grouted in place.]

NA: Not Analyzed

Environmental Resources Management, Inc.

Well 14D

WO No:	22317.00.01	Date Completed	10 July 1995		
Project	Givaudan	Owner	Givaudan-Roure Corporation		
Location	Clifton, N. Jersey	Boring Depth (ft)	172.0	Diameter	6 inches
Lat.		Surface Elevation		feet msl	
Long.		Riser Elevation		feet msl	
Screen	Open Hole	Length (ft)		Diameter	
Slot Size		Stabilized DTW		feet TOC	
Riser	None	Length (ft)		Diameter	
Method	MudRotary/Air Hammer	Driller	T.Brown	Geologist	Goncalves/Kimsey

Location Sketch Map

Drilling Company: Aquifer Drilling & Testing Mid - Atlantic, Inc. Trenton, N. Jersey

Elevation (MSL)	Depth (feet BGS)	Well Construction Schematic	Split-Spoon #	Recovery (inches)	Blows per 0.5 feet	OVA (ppm)	Sample (feet BGS)	Sample Description/Classification
							147	Red sandstone
	150							Fracture zone, about 60 gpm.
								Red sandstone, dark gray shale, highly fractured
	155							Red sandstone, more competent than above.
	160							Red sandstone, drilling slower.
	165							
							168-172	Red sandstone, fracture zone.
	170							
	172							*Bottom of borehole.*

NJPDES - 1

Revision 11/1/97

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Water Quality

NJ0088374

NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT APPLICATION

Refer to Instructions on Page 6 and the Appropriate Completeness Checklist and Provide All Applicable Information. Please Print or Type. (Attach additional sheets if necessary)

1. APPLICANT(S)/OPERATING ENTITY(IES)

Name GIVAUDAN ROURE CORPORATION

Mailing Address 155 PASSAIC AVENUE

City or Town FAIRFIELD, State NJ Zip Code 07004

Federal Tax I.D.# 024230200 Telephone (973) 439-2123

Fax (973) 439-2237 E-Mail gene.thomas@roche.com

Parent Corporation & Place of Incorporation GIVAUDAN ROURE CORPORATION, NEW JERSEY

2. PROPERTY/LAND OWNER(S)

Name SEE 1

Mailing Address

City or Town State Zip Code

Federal Tax I.D.# Telephone ( )

3. LOCATION OF FACILITY/SITE

Name of Facility/Site GIVAUDAN ROURE CORPORATION

Street Address/Location 100 DELAWANNA AVENUE

City or Town CLIFTON, State NJ Zip Code 07015

Municipality County PASSAIC EPA I.D. # NJD 002156345

4. FACILITY CONTACT (Person Familiar with the Facility/Site and this Application)

Name GENE THOMAS Telephone (973) 439-2123

Affiliation GIVAUDAN ROURE CORPORATION

Mailing Address 155 PASSAIC AVENUE

City or Town FAIRFIELD, State NJ Zip Code 07004

Fax (973) 439-2237 E-Mail gene.thomas@roche.com

5. PROJECT and DISCHARGE DESCRIPTION (Under This Application)

TERMINATION OF EXISTING NJPDES PERMIT DUE TO PLANT CLOSURE. PERMIT ALLOWS DISCHARGE TO GROUND WATER OF STORMWATER.

6. REQUESTED NJPDES PERMIT ACTION AND OTHER NJPDES PERMITS

Under Table A, for each requested permit action under this application, list each discharge activity associated with this facility/site in the left column using the discharge activity category codes provided below (i.e., A, A8, CSO, etc.) and check the requested permit action (new, renewal, etc.). Under Table B, list currently held permits and/or pending applications for this facility/site. For existing permits, list permit number(s) and expiration date.

TABLE A: REQUESTED PERMIT ACTION UNDER THIS APPLICATION

DISCHARGE ACTIVITY (CATEGORY) CODES	PERMIT NUMBER	EXPIR. DATE	NEW	RENEW.	MOD.	REVOC.	REVOC. & REISSUE
G W	088374	1/2002				X	

TABLE B: OTHER NJPDES PERMITS ASSOCIATED WITH THIS FACILITY

DISCHARGE ACTIVITY (CATEGORY) CODES	PERMIT NO.	EXP. DATE	PENDING
NONE			

Discharge Activity Categories (for completing the left columns in tables A and B above)

Discharge to Surface Water (DSW)
- A Domestic Surface Water Discharge
- A8 Discharge to Regional Outfall Auth
- CSO Combined Sewer Overflow
- B indus/Commercial/Thermal DSW
- B4B GP GW Petro Prod. Cleanup
- B5 GP Potable Water Treatment Plant
- CG GP Non-Contact Cooling Water

Discharge to Ground Water (DGW)
- GW Discharge to Ground Water
- T1 GP Sanitary Subsurface Disposal
- I1 GP Stormwater Basins/SLF
- I2 GP Potable WTP Basins/Drying Beds
- K1 GP Autodealers Carwash

Residuals and SIU Discharges
- L Discharge to POTW (SIU)
- D Land App. of Biosolids - Class B
- V Land App. of Biosolids - Class A
- E Land App. of Industrial Residuals
- EG Land App. Food Process. Residual GP
- Z Residuals Transfer Facilties
- 04 Residuals - Reed Beds

Stormwater Discharges
- RF Stormwater

Use the following for Table B only
- CPM GP Concrete Products Mgt.
- SM GP Scrap Metal Proc/Auto Recycling
- 5G2 GP Stormwater Basic
- 5G3 GP Const. Activity Stormwater

7. OTHER PERMITS

If any of the following applications have been submitted for this facility/site, complete the applicable information.

Permit Type	Application No. (if assigned)	Application Status: Approved Date	Denied Date	Pending ✓
• Treatment Works Approval (Municipal - Industrial)				
• Exemption From Sewer Ban	N/A			
• Water Quality Management Plan Amendment	N/A			
• Potable Water Supply Well	N/A			
• Hazardous Waste Management Program	N/A			
• Prevention of Significant Deterioration (PSD)	N/A			
• Nonattainment Program, Clean Air Act	N/A			
• National Emission Standards - Hazardous Pollutants	N/A			
• Ocean Dumping Permits (Marine Protection Act)	N/A			
• Dredge/Fill Permits - Federal Act Section 404	N/A			
• Relevant Environmental Permits - Including Federal, State, & Local Approvals - Specify:	NONE OTHER THAN	X		
	NJPDES PERMIT	7/1/92		

8. STANDARD INDUSTRIAL CLASSIFICATION CODE(S):

SIC Code #	(✓) if assigned by NJ Dept. of Labor	Products or Service Provided by Facility/Site
2869		MANUFACTURE OF FLAVORS, FRAGRANCES & SPECIALTY PRODUCTS
2844		
2087		

9. WATER SUPPLY/DISCHARGE INFORMATION

RAW WATER SOURCES: Please check ☑ all that apply.

☐ Public Water Supply: Name of the water utility PASSAIC VALLEY WATER
☐ Private Wells
☐ Surface Water: Name of the surface waters N/A

A) Is this facility/site connected to a sanitary or combined sewer? Yes ☒ No ☐
If yes, list name, address, and phone number of receiving wastewater treatment plant:

PASSAIC VALLEY SEWERAGE COMMISSIONERS, WILSON AVE, NEWARK, NJ 07105 -973-344-1800

B) Does this facility discharge to a storm drainage system? Yes ☒ No ☐
If yes, please check ☑: ☒ Public ☐ Private

C) Does this facility discharge to surface water? Yes ☐ No ☒

D) Does this facility discharge to ground water? Yes ☒ No ☐

10. LICENSED OPERATOR(S) (IF APPLICABLE)

Name JOSEPH A. ZGURZYNSKI SR. N.J. License No. N-3/0016896

Affiliation CONSULTANT TO GIVAUDAN ROURE CORPORATION

Mailing Address 669 COUNTY ROAD 519

City or Town FRENCHTOWN, State NJ Zip Code 08825

Telephone (908 996-4088 Fax (908 996-3205 E-Mail ZG@EPIX.NET

11. APPLICANT'S AGENT (Optional)

The person listed below is authorized to act as agent/representative in all matters pertaining to this application.

Name _____ Position _____

Company _____

Mailing Address _____ City _____

State _____ Zip Code _____ Telephone ( ) _____

Fax ( ) _____ E-Mail _____

_____ _____ _____ _____
Signature of Agent Date Signature for Applicant Date

12. PROPERTY OWNER'S CERTIFICATION (FOR DGW PERMITS ONLY)

I hereby certify that GIVAUDAN ROURE CORPORATION
(Property Owner's Name)
owns the property identified in (d.) below. The owner grants permission for the activity to be permitted under this application and authorizes the Department to conduct on-site inspections, if necessary.

In addition, I certify: (check "yes" or "no")	YES	NO
a. The activity will take place in an easement?	____	X
b. Part of the entire project (e.g. pipeline, disposal area, wells, etc.) is or will be located within property owned by the State of New Jersey?	____	X
c. Part of the entire project (e.g. pipeline, disposal area, wells, etc.) is or will be located within property owned by a municipality or county? (If "yes", contact the Green Acres Program at (609) 588-3461 for an applicability determination.)	____	X

d. LOT 22,29,30; 2,104

BLOCK 60.14; 73.03

Signature for Owner — Date: 4-8-99

DAVID B. JOHNSON, CSP
Print or Type: Name

VP, ENVIRONMENTAL, HEALTH & SAFETY AFFAIRS
Print or Type: Position

Note: If "yes" to statements a, b, or c, the applicant must provide evidence of obtaining permission from the other property owners (include copy with this application).

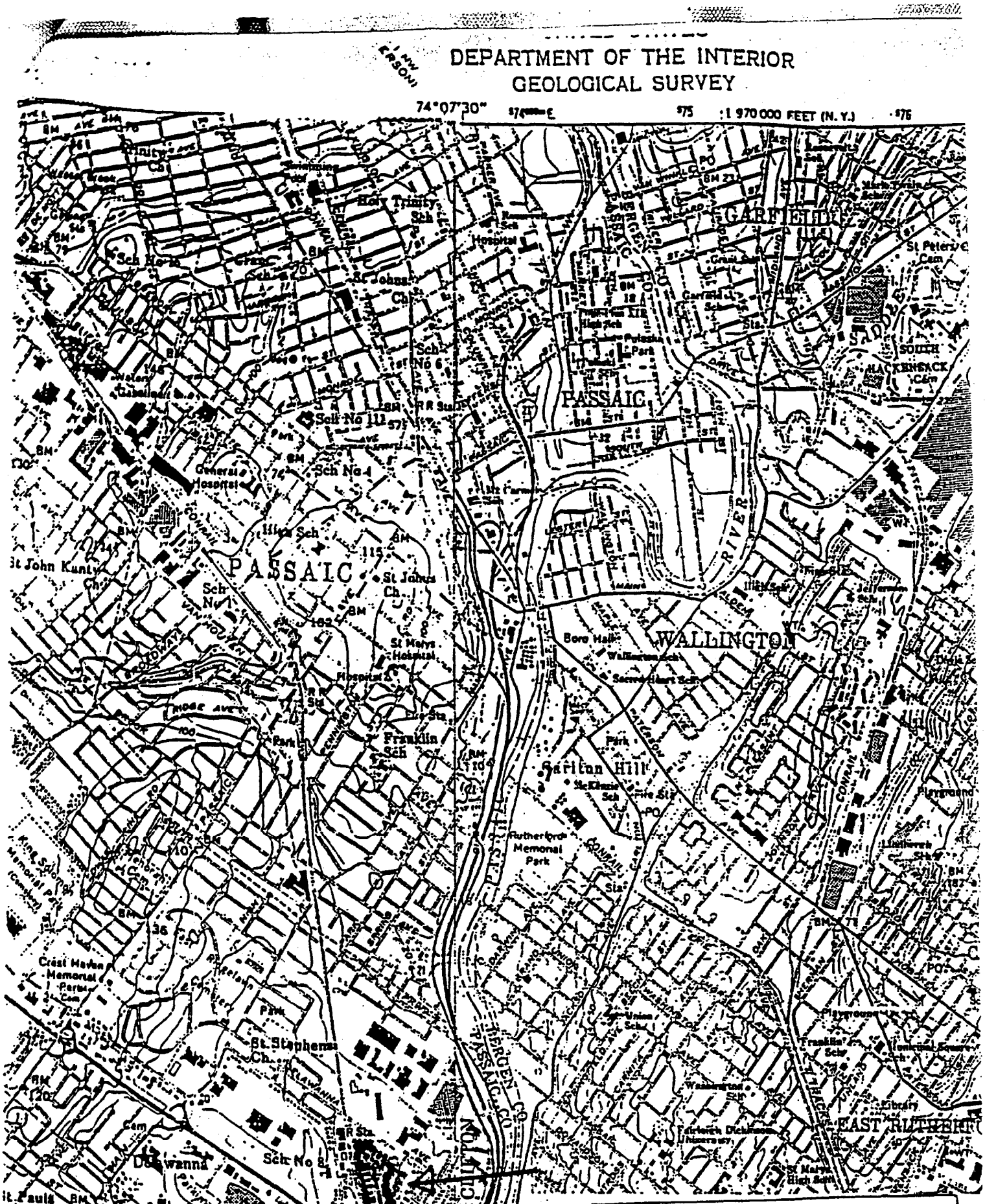
13. CERTIFICATION BY APPLICANT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for purposely, knowingly, recklessly, or negligently submitting false information."

Signature for Applicant — Date: 4-8-99

DAVID B. JOHNSON
Print or Type: Name

VP, ENVIRONMENTAL, HEALTH & SAFETY AFFAIRS
Print or Type: Position



USGS TOPOGRAPHIC MAP

Site of Industrial Plant

GIVAUDAN CORPORATION